**Reviewer's report**

**Title:** Underestimated pyrazinamide resistance may compromise outcomes of pyrazinamide containing regimens for treatment of drug susceptible and multidrug-resistant tuberculosis in Tanzania

**Version:** 0  **Date:** 23 Apr 2018

**Reviewer:** Mamel Quelapio

**Reviewer's report:**

1. **Background and results:** Although rare and eventually replaced with other drugs in the regimen, baseline Lfx and Km resistance among MDR-TB patients is important to include in Table 2 (as part of clinical characteristics describing patients with and without Z resistance) and Table 3 showing treatment outcomes. As they are crucial drugs, individualized treatment using weaker agents as replacement may have contributed to treatment failure. A more careful review of the entire manuscript is advised and correct discrepancies between Table 1 figures and the text referring to the table, rounding off of figure (MDR among 91 patients), percent on ART among 6 HIV-positives. Correct the inaccuracy using reference 7; only HIV status is mentioned as a predictor of mortality in this article, and not Z resistance. Cite reference for MDR-TB treatment outcome definitions (completion, interruption) used in this paper. Careful review is needed to correct typographical and grammar errors in different parts of the manuscript. Use the latest Global TB Report as reference (2); use "loss-to-follow-up" instead of "default" (patient-centered terminology).

2. **Discussion:** To the reviewer's knowledge, no consensus recommendation has been made to extend treatment of Z resistance among DS-TB patients. Otherwise, cite the reference. Provide a more focused discussion. Mentioning rates of prevalence of Z-resistance in other settings would fit better in the Background rather than expressed lengthily in the Discussion.

3. **Recommendations:** MGIT remains to be the currently WHO-recommended DST to Z with all its drawbacks and reproducibility issues; global advice is needed for endorsement of a more reliable test. Consider to recommend to specifically review Z resistance in similar settings where retreatment is common.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.
Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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